

ON THE WEIGHTS AND DENOMINATIONS OF TURKISH COINS

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X.

ON THE WEIGHTS AND DENOMINATIONS OF TURKISH COINS.

THERE is but one serious difficulty connected with 'Othmání coins, and that is their metrology. The coinage of other Mohammadan dynasties is of a more or less simple character; dínárs and dirhems, with very occasional and elementary subdivisions, have comprised the denominations of all gold and silver issues; and the fluctuating and anomalous copper coinage which accompanied them has defied metrological analysis. Even if the standards and titles of the earlier Mohammadan issues presented a more important field of metrological inquiry, the data appear to be almost wholly wanting. The weights and titles of dínárs and dirhems were constantly changing, at the bidding no doubt of the financial exigencies of the particular State or sovereign; but in the vast majority of instances the records as to these changes and their causes are not to be found. In preparing my catalogue of Oriental Coins in the British Museum, therefore, it has not been necessary and rarely possible, hitherto, to enter with any reasonable prospect of commensurate results into the vexed questions of Mohammadan metrology. With the 'Othmání coinage, however, the case is different. Here we have some data to go upon. The commercial relations between Turkey and the other European powers

made some sort of approximation to European systems of currency necessary, and also called forth from time to time official tariffs of exchange between Turkish and other coinages. These documents not only deal with the exchange value and the mutual relations of the various 'Othmánly coins, but often give their weights and certain rough descriptions of their appearance and distinctive marks. The question of weights and denominations has occupied my attention lately, inasmuch as no description of the modern Turkish coinage, such as that upon which I am now engaged at the British Museum, would be complete without the name by which each coin is distinguished in Turkey, and this denomination is, as a rule, only to be determined by the weight of the coin.

The early Turkish coinage, indeed, presents little variety of denominations. The *akcheh* or '*othmány*, a small silver coin, was the only piece issued by Urkhán, son of 'Othmán I., when he inaugurated the Ottoman coinage in 729. The *mangir*, a copper coin, was introduced by his successor, Murád I.:—it was of uncertain value, and ranged apparently at first from eight to sixteen to the *akcheh*, and eventually became of equal value with it. After the conquest of Constantinople, Mohammad II. for the first time issued (in 883)¹ the gold coin called *altun*, or more generally by numismatists *sequin*. Previously foreign gold coins, especially the Venetian ducat, had sufficed for the Turkish currency, counter-stamped, however, according to M. Belin, with "*sahh*, contróle," in a square. The *altun*, or *sultány altun*, was known by various other names, according to the predominant foreign com-

¹ The first Turkish gold coin in the British Museum is not of Mohammad II., but of his successor Bayezid II., and bears the date 886 A.H. (1481 A.D.)

mercial influence:—under western influence it was called *flûry* (florin); under Persian, *shâhy*; and after the conquest of Egypt, the name *Ashrafy*, or *sherify*, which had been given to the improved coinage of El-Ashraf Barsabay, was transferred to the issues of the Constantinopolitan mint. Thus far, beyond a good deal of deterioration and fluctuation in the weight of the *akcheh*,² there is little to remark about the 'Othmánly coinage. Down to the time of Ahmad III., the gold coins are all simply *altuns* (qualified according to the fancy of the time with various epithets, as *shâhy*, *ashrafy*, *sherify*, *tughraly*, *jedíd*, &c.), the silver coins, except certain heavy pieces of Syria and Mesopotamia, are *akchehs* or '*Othmánis*, and the copper, *mangirs*.

In the twelfth century of the Hijreh, a new coinage begins. Two standards of gold are issued side by side, and an entirely new system of silver currency is introduced. The two metals must be discussed separately.

The change in the gold currency consisted in the introduction of a second standard. Hitherto the *altuns* had weighed about 53 grains, sometimes rather more, and often a few grains less. Under Ahmad III., however, in 1123, a different gold coin, weighing 40 grains, or about $\frac{3}{4}$ ths of the old *altun*, was struck. It has been suggested³ that this new coin was originally an *altun* of the Egyptian mint and of the old weight, and that it gradually deteriorated until it came down to 40 grains, when it was

² M. Belin's pages (*Journal Asiatique*, 6th sér., t. iv.) are full of records of a constantly increasing debasement of the *akcheh*. *E.g.* Selim I.—8 *akchehs* weighed 1 drachm of silver and 60 went to the sequin; Selim II.—*akchehs* smaller; Mohammad III.—*akchehs* still smaller and thinner; Ahmad I., still diminishing; 'Othmán II.—*akcheh* thinner than paper.

³ By M. Bernard in the *Description de l'Égypte* (2nd ed., t. xvi.).

introduced into Constantinople, doubtless with a view to that financial jugglery for which the Turkish mint was famous. There is, however, no evidence either of this Egyptian origin or of this gradual deterioration. We should expect to find Egyptian pieces of 50, 48, 44 grains, and so forth, gradually approximating to the eventual 40 grains. Such, however, we do not find. The new standard of 40 grains comes suddenly into existence, *first in Constantinople* in 1123, and then in Egypt in 1143, with no previous gradations of weight.

This sudden introduction of a perfectly new standard weight is a matter of no great surprise in the history of Turkish money, and indeed, taken in connection with the almost contemporaneous change in the silver issues, appears natural. M. Bernard has confused the separate questions of the origin of the *type* and the origin of the *standard*. The type of the new coin is older than its standard. It must be observed that 'Othmánly coins are distinguished by certain regular and constant formulas of faith, or their entire absence. (A.) The old altun has on its obverse the formula, *Dárib en-nadr wa sáhib en-nasr fi-l-barr wa-l-bahr*, "Striker of the shiny (*i.e.* money) and holder of victory on land and sea." (B.) A new formula, *Sultán el-barreyn wa Khakán el-bahreyn sultán ibn es-sultán*, "Sultan of the two lands and khakaan of the two seas, sultan son of the sultan," was first substituted for formula A, on the Egyptian coinage in 982 (under Murád III.), and retained its place there undisputed until 1143, when coins without any religious formula shared its monopoly. This second formula, *Sultán el-barreyn*, gradually ousted *Dárib en-nadr* from most of the Turkish mints; it took possession of the coinage of Aleppo in 1002, of Amid 1013, of Algiers 1032, Tunis 1049, and Constantinople in 1058. The difference

of formula, however, so far has nothing to do with the weight. A and B alike weigh about 53 grains. (C.) In the reign of Ahmad III., which began in 1115, the 3rd type of gold coin was introduced; this had no religious formula, but the Tughra or monogram of the sultan on the obv., and was of the orthodox weight of 53 grains. This new Tughra coin received the name of *fundukly*. It was at the same time that the coins with Formula B were issued with the new standard of 40 grains, and received the name (said to have originated in Egypt) of *zer mahbúb*, which they bore to the time of Abd-el-Mejid. Thus we have (1) from 883 to 982 only Formula A, weight 53; (2) from 982 to 1115 (or a little later) Formulas A and B side by side, the latter gradually monopolising almost the whole coinage, both of weight 53 grains; (3) from 1115 to 1260, a new *Tughra*-impressed non-religious coin, of the old 53 weight, distinguished by the name *Fundukly*; and the already known Formula B coin, now reduced to a new standard of 40 grains, and called *Zer Mahbúb*. M. Bernard was quite right in saying that Formula B originated in Egypt; but the name *Zer Mahbúb*, which is identified with Formula B *and the weight of 40 grains*, was probably not given to the coin before the new weight was invented, and that invention took place at Constantinople, not Cairo. The weights 53 and 40 remained almost unchanged down to 1203, when the mahbúb standard was reduced.

There are half funduklis of 26 and 27 grains, from the time of Ahmad III. in the National Collection, and a half zer mahbúb of 20 grains from the same period. An early quarter sequin zer mahbúb is mentioned by Bernard; but so far as I am aware the quarters are always of the fundukly standard, of about 13 grains, until the reign of Mahmúd II.,

when z.m. quarters are introduced, the subdivisions undergoing variations corresponding to the changes in the units. These variations may be thus tabulated :—

GOLD COINAGE OF MAHMUD II.

Year of Reign.	Zer Mahbúb.	$\frac{1}{2}$ Z. M.	$\frac{1}{4}$ Z. M.	Double (or Mahmúd- iyeh).	$\frac{1}{4}$ F.
1—9	37 $\frac{1}{2}$ grs.	...	...	...	...
1—18	...	...	...	...	13
9—15	37	...	...	...	...
9—13	...	17	...	70	...
15—20	24	14, 12	} 8—5	...	...
21—26	27	13			
26—32	24	12			

It will be noticed that a double mahbúb is inserted in the preceding table. Multiples of the sequin, whether fundukly or mahbúb, existed from the beginning of the double coinage. The British Museum has examples of Mahmúd I., weighing 75, 67, and 80 grains, and of 'Othmán III., 77, 81, 82 grains; Mustafa III., 71, 74, 75, 80 grains; 'Abd-El-Hamid I., 79 and 80 grains; Selím III. (when the z.m. had fallen to 37) 65; and Mahmúd II. 70 grains. These are all double mahbúbs, and their weight is not very different from that of the old mithkál, 71 $\frac{1}{2}$ grains. Besides these, there is a piece of Mahmúd I., weighing 117 grains, which is apparently a triple sequin z.m.; and another of 244 grains which may be a six sequin piece. Mustafa III. issued a gold coin of 150 grains, which may be a quadruple sequin. There is also an ornamental piece of Ahmad III., with a rim, and a weight of 440 grains, which was not intended to pass current. It is remarkable that the double sequins, though twice the *mahbúb* weight, are of the *fundukly* type, with Tughra on obv. They may, however, equally well be described as 1 $\frac{1}{2}$ Fundukly.

The silver coinage is a much more complicated matter than the double gold standard. In the gold, the scanty notices of the Turkish historians are in very fair accord with the weights and characteristics of the actual coinage as preserved in the British Museum. In the case of the silver this is unfortunately not so. Before discussing these discrepancies it will be necessary to state upon what authorities I have based my conclusions. These are—

1. A useful, painstaking, and learned series of *Essais sur l'histoire économique de la Turquie*, contributed by M. Belin to the *Journal Asiatique*, (sixth series, t. iii. pp. 416—489; iv. 270—296, 301—390, 477—530; v. 127—167), in which everything that can be extracted from the Turkish annalists and from treaties and other documents bearing on finance and coinage is arranged as systematically as the nature of the case permits. How vague and unsatisfactory the results are, and how meagre and rare the definite data, proves, not that M. Belin did not do his best, but that the materials are wanting for anything approaching to a complete and detailed history of Turkish money and finance.

2. The tables of Turkish coins in Bonneville's well-known *Traité* (2nd edition); they are, however, incomplete and very limited in range.

3. Various notes and tables procured for me by Dr. E. Dickson, of the British Embassy, Constantinople, who has kindly devoted much time and trouble to collecting materials for me, and among other things has supplied me with a useful list of coins drawn up by M. Hortolan. Dr. Dickson has left no stone unturned to find any official mint-records or other documents bearing on this subject; but it appears that the officials of the Porte are entirely

ignorant of the history of the currency ; no documents exist ; and, in fact, coining, like everything else in Turkey, has always been conducted in a haphazard, inaccurate, and often dishonest way : a certain number of coins had to be issued at a given time, and only a certain quantity of bullion was in the Treasury for the purpose ; accordingly the amount of gold and alloy, and the weight of the coin, were arranged so as to fit the exigencies of the situation. The result is that we cannot expect any consistent or methodical system of moneying.

4. The *Description de l'Égypte* contains (in vol. xvi. of the second edition) an excellent treatise on the Turkish coinage of Egypt by M. Samuel Bernard. This is perhaps the most valuable monograph on 'Othmánly coins in existence ; certainly it is the most exact and detailed. It has, however, the disadvantage that it is mainly concerned with the provincial mint of Egypt, not with Turkish coins at large ; and it is disfigured by some serious errors, as when the author maintains that the ciphers on the coins represent the year of the Hijreh in abbreviation, and not the year of the reign : *e.g.* 1· stands (according to M. Bernard) for 1210, not for the tenth year of the reign of Selím III., *i.e.* 1212.

5. The main authority upon which to depend is after all the coinage itself. The 1200 'Othmánly coins in the British Museum offer a large induction, and upon them my conclusions must be principally founded. When the written authorities and the coins are at variance, there can be no doubt that the coinage is the safer guide. As, however, until the last twenty years the coins themselves bore no indication of their denominations, and the ghrúsh and its subdivisions and multiples, and the intermediate pieces, were distinguishable only by their weight, the coin-

age may not always be a clear and satisfactory guide. When, for example, we know there were pieces of 5, 10, 15, 20, 30, 40, 60, 80, and 100 paras, and the series is not completely represented in the collection, but only pieces of say 225, 306, and 445 grains, it may be doubtful whether the three are respectively 20,³30, and 40 para pieces, or 30, 40, and 60 para pieces, especially since M. Belin's economic history records sudden and extensive alterations in weights. The coins, therefore, require to be used with caution in an examination of this kind, and great allowance has to be made for the extraordinary carelessness and inaccuracy of the mint officials, whereby phenomenal exceptions to ordinary rules may occur, and also for friction, which has reduced many Turkish coins considerably in weight. Nor must it be forgotten that Turkish promise and Turkish performance do not always correspond, and that an edict fixing the weight of a certain coin at so much was not by any means sure to be put literally into practice.

M. Belin distinguishes between the national and the commercial monetary system of Turkey. The former consisted of the altuns, akchehs, and mangirs, which make the course of the metrologist tolerably smooth down to the end of the eleventh century of the Flight.⁴ The commercial system is the silver currency introduced

⁴ A ten akcheh piece is stated by M. Belin to have been introduced by 'Othmân II. in 1028, and to have been called *'Othmány*, after the Sultan. This is confirmed by the appearance of a silver coin of 44 grains weight in the B. M. collection in this very reign. Similar coins of about 40 grains continued to be issued down to the time of the institution of the new coinage.

after that date to meet the exigencies of commerce with European nations. A large number of foreign coins have always assisted the Turkish currency. At one time, when the akcheh was the only silver coin issued at Turkish mints, foreign dollars and grossi served the purposes of the higher denominations of a silver currency. But under Suleyman II., in 1099, the Porte began to issue large silver coins in imitation of its neighbours. The Austrian thaler, and Dutch rix daler (which the Turks called *asadi ghrúsh*), were the chief large silver coins current in the Ottoman empire, and it was in imitation of these that Suleyman II. issued his own large silver pieces in 1099, and gave them the name of *ghrúsh*, which recalls the grossi, groschen, and groat of the Western States. The Dutch dollar weighed $8\frac{1}{2}$ drachms,⁵ and the German 9; but the new Turkish ghrúsh was fixed at 6 drachms, or less than 300 English grains (285, or 18·42 grammes, according to M. Belin). Without entering deeply into the question of the exchange value of this Turkish ghrúsh, or piastre, as it was called by travellers—not, however, to be confounded with the small modern piastre—it is interesting to notice that the ghrúsh and the akcheh, which was its lowest “divisionnaire,” were constantly altering their relations. At first 50 akchehs went to the ghrúsh, then 40—sometimes as many as 80, and finally, in 1138, as many as 120 akchehs went to the

⁵ M. Belin gives the “drame” as $\frac{3}{4}$ of the mithkal, which he estimates at 4·618 grammes. The drame, at this rate, would be 3·079 grammes, or say $47\frac{1}{2}$ English grains. The Dutch crown would thus weigh 408 grains. There happens to be a Dutch crown counter-struck with Mustafa II.’s inscriptions, only a few years later than Suleyman II., and this weighs 415 grains. M. Belin’s “drame” is perhaps inaccurate.

new Turkish unit. This last figure, however, is perhaps explained by the fact that another small silver coin, the *para*, had come into existence about the middle of the eleventh century of the Hijreh (before 1066 = A.D. 1655), and that the *para* eventually usurped the place of the *akcheh*. How many *paras* went to the *ghrúsh* originally we do not know; but we do know that at first 4 *akchehs* went to the *para*, and supposing that about 80 *akchehs* at that time made up the *ghrúsh*, the latter must have equalled 20 *paras*. Then, as *para* and *akcheh* deteriorated—as we find they did in almost every page of M. Belin's instructive *Précis historico-économique* (ch. v.)—the *para* came to be, what it continued to be down to the time of 'Abd-el-Mejid, the 40th of the *ghrúsh*, and the *akcheh* became the 3rd of the *para* and the 120th of the *ghrúsh*.

Between the *ghrúsh* and the *para* were a series of subdivisions: the *beshtik*, or 5 *para* piece; *onhtik*, 10 *para*; *onbeshtik*, 15 p.; *yigirmhtik*, 20 p.; *solota* or *otuzhtik*, 30 p.; the *ghrúsh* itself being 40 p. Beyond the *ghrúsh* were the *altmishhtik*, or double *solota*, 60 *para*; the *ikhtik*, or double *ghrúsh*, 80 p.; and the *yushtik*, 100 *para*; but the last three were not so regularly coined, to judge from the collections, as the lower denominations.

We are now able to attack the main question: How are we to distinguish between these various denominations? Or, since there is only the weight to guide us, what were the weights of these various denominations at various periods?

In order to deal with this question, the first essential is to collect all the data that can be gathered from the sources enumerated above. The following table (pp. 178 and 179) exhibits the principal weights of 'Othmánly silver coins.

The weight is expressed in English grains, and has

often had to be reduced from M. Belin's grammes, and since M. Belin has himself reduced the grammes from the Turkish weights, it is possible some error may have crept in, especially as Turkish weights were not always fixed quantities. I have left out fractions; the Turkish mints were so lax in their adjustments, that a whole grain wrong here and there was of no importance! The names of the Sultans, from the introduction of the new coinage under Suleyman II., are given on the left margin; the denominations of the coins are inscribed at the top, and the weights appertaining to them are placed in the corresponding column beneath; the initials preceding each weight represent:—A = Belin; B = British Museum Collection; C = Bonneville; D = M. Hortolan; E = M. Bernard, in the *Description de L'Egypte*. The para is made the unit for convenience of numbering. All the coins were struck at Constantinople, except the few marked E.

Accepting M. Belin's statement that the first ghrúsh, the ghrúsh of Suleyman II., weighed 6 drachms, or say 300 grains, the British Museum coins correspond very well for the first three reigns: ghrúsh, 294, zolota, 223, under Suleyman II.; ghrúsh, 300, yigirmlik, 146, under Ahmad II.; and ghrúsh, 300 or 310, yigirmlik, 150 or 155, and perhaps onbeshlik, 94, under Mustafa II. But the first really conclusive series is that of Ahmad III., of whom the B.M. collection has pieces of 2-4, 10, 52, 100, 150, 204, 300, and 415 grains, which may undoubtedly be labelled akcheh (3), para (10), beshlik (50), onlik (100), onbeshlik (150), yigirmlik (200), zolota (300), and ghrúsh (400). Here the difficulty arises: why was the ghrúsh suddenly raised from 300 to 400 grains? Or are the previous coins of 294, 300 and 310 grains zolotas, and not ghrúsh at

'Othmāny.	1	5	10	15	20	30	40	60	80	100
Sultān.	Akbeḥ.	Para.	Beshlik.	Onbeshlik.	Yigirmlik.	Zolota.	Ghrāsh.	Altinshlik.	Idlik.	Yuslik.
Suleymān II. A.H. 1099—1102. Ahmad II. 1102—6. Mustafa II. 1106—15.	B 2				B 146 B 150, 155	B 223	A 285 B 294 B 300 B 310, 306 298, 293 <i>Imperial</i> dollar counter- struck, 300: <i>Deutsch</i> dollar counter- struck 419 B 389, 415 [A, see Zo- 300 [A, <i>Old</i> 290 ² lotas] <i>New</i> 390] B 371, 366, 363, 362 B 365			
Ahmad III. 1115—43.	B 2, 4 B 9, 10, 6	B 52, 56	B 100, 99	B 165, 160	B 204, 198	B 293, 299, 300				
Mahmūd I. 1143—1168. 'Othmān III. 1168—71. Mustafa III. 1171—87.	B 3 B 10, 13, 9, 8 B 43 B 37	B 49, 40, 39, 38 B 43	B 97, 91 B 73	B 186, 180, 176	B 142, 148 E 121	B 289 B 228, 225, 212	B 306, 298, 297, 292, 288 D 295 E ('Aly Bey) 245			

'Abd-el-Hamid I. 1187—1203.	B 2	B 8	B 37, 35 66, 65	B 70, 69, 66, 65	B 148 C 97 ¹ D 96 B 95 C 97	B 224 [D 203] ²	B 296, 292, B 426, 412 274, 272, 247 C 300 D 295 A "atik" 190 B 190, 195 C 203 E (Bona- parte) 194, 192 B 197	C 410 [D 410] ⁴ B 390 [A "atik" 380 ⁵ B 440 B 500, 490, 495 C 470 C 490 .	C 470 D 470 C 490 [A "atik" 380 ⁵ B 440 B 500, 490, 495 C 470 C 490 .	A Jihâdiyeh ⁶ Beshlik of 3 piastres, 410.
Selim III. 1203—22.	B 2	B 5	B 26	B 52, 47						
Mustafa IV. 1222—3. Mahmûd II. 1223—55. * Year of Reign 1-15. + " " 18-21. + " " 23-30.	B * 3 + 4	B 6 (2½ para?) B + 11 + 15	B 23 B * 25 + 27 + 30	B 50 B * 50 + 53 + 50	B * 90, 95 + 110 + 120	B * 135 + 180 + 120	B * 200, 180 + 230 B 300	B * 400, 410, 390		
					¹ This ought probably to a mistake be referred for old to Selim III.; and new but it is just ghrûsh. possible the coins may have fallen beazolota, to 97 at the end of 'Abd- el - Hamid's reign.	² Probably for old and new ghrûsh. ³ This must beazolota, though D calls it el - Hamid's ghrûsh.	⁴ D calls it Iklîk, doubtless by mis- take.	⁵ Surely an alt- mishlik.	⁶ A coin of necessity.	

all? In the face of M. Belin's definite statement as to the weight of the first ghrúsh, and considering the absence of any heavier coin than those of about 300 grains, we may dismiss the latter question. How the coin came suddenly to be raised from 300 to 400 may perhaps be explained by the fact that the B. M. possesses two dollars counter-struck with the inscriptions of Mustafa II., the one an Imperial dollar, weighing 300 grains, the other a Dutch dollar, weighing 415 grains. I believe the explanation of the change in the weight of the ghrúsh is simply that the Dutch dollar was taken as the model, in the place of the Imperial dollar. It was precisely at the same period that the 40 grain zer mahbúb gold piece was first issued side by side with the 53 grain fundukly. It may be observed that the proportion between the mahbúb (40) and the fundukly ($53\frac{1}{3}$) is precisely the same as that between the Imperial (300) and the Dutch (400) dollar, or the zolota (30) and the ghrúsh (40). I believe, therefore, that just when the lower mahbúb standard was added to the gold currency, the lower (Imperial dollar) standard was classed as a zolota, and the higher (Dutch dollar) standard introduced as the ghrúsh. Against this view, however, which is based upon the coins themselves, must be set the statement of M. Belin, based upon historics and official documents, that under Ahmad III., in 1131, new zolotas were issued at 8 drachms 1 danek (or 390 grains): the old zolotas being at the same period stated to weigh $\frac{1}{16}$ th of 98 drachms (or 290 grains). It will be noticed that these figures, 290 and 390 grains, correspond pretty accurately with the 293 and 389 of the British Museum specimens; but I am not disposed therefore to allow that these specimens are accordingly an old zolota and a new zolota respectively. If the old zolota weighed nearly 300 grains, the British Museum does not possess a ghrúsh until

Ahmad III.'s time—which, considering the richness of the collection, is improbable; and further, on this theory, M. Belin's other statement that the original ghrúsh weighed 285 grains is incorrect. The simpler explanation, I think, is to regard M. Belin's "old and new zolotas" as errors for "old and new ghrúsh," which at once brings this statement into accord with the rest of the data.

Accepting, then, the hypothesis that in the reign of Ahmad III. the ghrúsh was raised from 300 to 400 grains, just as two gold coins in the same proportion were at the same time issued, it must be seen how the theory works in subsequent reigns. Under Mahmúd I. we find the following scale:—Akcheh 3 grains, para 10, beshlik 49, onlik 97, yigirmlik 186, zolota 289, ghrúsh 371, which are all in very fairly accurate proportion, but all a little reduced, the ghrúsh apparently falling gradually to 362 grains. Under 'Othmán III. the same proportions are preserved, but the weights continue to fall, and under Mustafa III., half a century after the increased standard in silver was introduced, the ghrúsh has returned to its old weight of 300 grains, and even less, and the scale becomes 3, 8, 37, 70, 103, 148, 228, 306, and a very similar scale is maintained during the reign of 'Abd-el-Hamid I. A fresh reduction took place under Selím III. (1203); the para fell to 5, and the ghrúsh to 200 (or 190), and the beshlik, onlik, and yigirmlik were proportionately reduced to 5, 26, 52, and 95, and this remained true for Mustafa IV. Mahmúd II. used three successive scales: in the first (from the first to the fifteenth year of his reign) the para was presumably 5, the beshlik 25, onlik 50, yigirmlik 95, zolota 135, and ghrúsh 200; in the second, the weights were raised about 10 per cent., and a coin which can scarcely be a para, but perhaps a $2\frac{1}{2}$ -para piece, was issued at 11 grains; in the third, this coin became

15 grains, the beshlik 30, onlik 50 (for 60), yigirmlik 120, zolota 180, and ghrúsh 230 (for 240). Under 'Abd-el-Mejid, after a few years, an entirely new and Europeanised coinage was introduced, which offers no special interest.

From the time of Mustafa III. (1171—87) those large silver pieces, multiples of the zolota and ghrúsh, which always nominally existed in the reformed Turkish coinage, but I suspect were seldom coined in any large numbers, begin to appear in the British Museum cabinet. The most ordinary examples are the *altmishlik*, or double zolota, of 60 paras, equal to a ghrúsh and a half; and the *yuslik*, or double ghrúsh. The weights of these, according to the authorities, and also according to the coins which I believe to correspond to these denominations, are given in the table, and offer little difficulty. The *yuslik*, or 100-para piece, only occurs, in the British Museum, in the coinage of Selím III., and I am inclined to believe that the weight given by Bonneville for the same piece under 'Abd-el-Hamíd is a mistake. Under Mahmúd II. a *pièce de nécessité*, the jihadiyeh beshlik (beshlik here meaning "five" ghrúsh, not "five" para), was issued at the low weight of 410, instead of 1000, grains.

The provincial coinage of the Ottoman Empire offers some peculiarities; but these I need not discuss here. I have only endeavoured to draw a sketch of the metrology of the metropolitan mint of Constantinople. The difficulties of the inquiry have been increased by an insufficient number of coins of certain periods, and my theory might be considerably modified by a larger induction. It would be of great service if those collectors who possess Turkish coins would send me the weights of their dated specimens.

STANLEY LANE-POOLE.

May, 1882.